

REMARKS

Claims 1-26 are pending and at issue. Claims 1, 10, and 20 are in independent form, and the remaining claims are in dependent form. Claims 24-26 are added by amendment above. No new matter has been added.

There is a single prior art rejection of the claims. Claims 1-23 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Thelander* et al. (U.S. Patent Application Publication No. 2003/0009705). Applicants respectfully traverse and request reconsideration.

Independent Claim 1

Claim 1 recites a machine-accessible medium having stored thereon instructions that, when executed by a machine, cause the machine to measure power usage on the machine; and in response to a measured quantum of power usage, sample state data of the machine. The prior art does not teach or suggest the claimed subject matter.

Thelander concerns techniques for controlling power management profiles on networked computers. The *Thelander* system essentially divides into two parts, one for setting power management profiles, and the other for monitoring power usage to obtain "power usage information" that is then be used to set those same power management profiles. *Thelander's* power usage measurement is part of an attempt to reduce the overall electrical power consumption by computers and conserve energy, e.g., through the use of standardized suspend, hibernate, standby, and shutdown modes.

Thelander is quite different from the descriptions of the present application, where, for example, systems are described that are capable of profiling the power used by particular code executing in a system. See, e.g., present application [0027]. Systems, for example, may measure when a certain quantum of power has been delivered or consumed by the system, or a subsystem, and then determine whether the system has changed since the last quantum of power usage, e.g., whether the same code is still executing. This description is provided by way of example, but it illustrates differences from the teachings of *Thelander*.

Thelander, in fact, does not measure or respond to particular quantum of power usage. Instead, *Thelander* takes action based on an elapsed time or the occurrence of a change in power state. As noted at [0009] of the present application, elapsed time triggers and event-based triggers alone are not sufficient to provide accurate assessments of the power consumed by executable code.

Focusing on the particular features of *Thelander*, the first part of *Thelander*, the power management profile setting, does not teach sampling state data of a machine in response to a measured quantum of power usage. The power management profiler merely sets the power management profile of a computer system so that its power state (suspend, hibernate, standby, and shutdown) is programmed to automatically change based on time. *Thelander* allows a user to individually configure and maintain a power management profile in this way, but as figure 4 of *Thelander* points out (contrary to the suggestions of the office action) that power state is set in response to a measured period of time. No quantum of power usage is measured, and there is no sampling of state data in response to measurement of a particular quantum of power usage.

The second part of *Thelander*, the power usage monitor, similarly does not teach sampling state data of a machine in response to a measured quantum of power usage. First, *Thelander's* monitoring operation (see, e.g., *Thelander* [0058] et seq.), is nowhere described as being triggered or affected by the measurement of a particular quantum of power usage. The operation appears to simply monitor and record power usage information for the system, without trigger from a particular amount of power delivered or consumed. While *Thelander* describes monitoring "a variety of power usage information" nowhere does it describe sampling state data or any other data in response to the measurement of a quantum of power usage. This "power usage information" of *Thelander* is used to "estimate the total amount of power consumed by the computer over time," but that does not teach sampling state data of the machine in response to a measured quantum of power usage. See, e.g., *Thelander* [0058]. And *Thelander* may monitor when a computer switches to a new power state – an apparent event-based operation – but there is no recognition of using quantum of power usage to trigger such operation. Further, even if the

power usage information may include "power consumption of hardware or software employed by the computer," (*Thelander* [0060]) there is simply no teaching or suggestion of sampling state data of the machine in response a measured quantum of power usage.

In short, *Thelander* neither teaches nor suggests the subject matter of claim 1. The rejections based on claim 1 and the claims depending therefrom are as a result traversed for at least the foregoing outlined remarks.

In addition to the foregoing, the applicants separately highlight the rejection of claim 8, which depends from claim 1. Claim 8 recites that the "state data is a program counter." The office action points to figure 4 and units 423 and 431 of *Thelander* as reading on the recited program counter. The applicants respectfully traverse.

First, 423 and 431 are fields presented by a power scheme settings display and serve to display the power settings for a system monitor. Fields in a display are not program counters, and these fields certainly provide no indication of where code is in its instruction sequence. Second, even contemplating the code that displays these fields or the code that is affected by the adjustments thereof, there is still no teaching in *Thelander* that this code represents program counter data.

In light of the foregoing, applicants respectfully traverse the rejections of independent claim 1 and claims 2-9 depending therefrom.

Independent Claim 10

Claim 10 recites a method of profiling code executable on a machine by measuring power usage on the machine; and in response to a measured quantum of power usage, sampling state data on the machine. For at least the reasons outlined above with respect to claim 1, applicants respectfully traverse the rejections of claim 10 and claims 11-19 depending therefrom. Reconsideration is respectfully requested.

Independent Claim 20

Claim 20 recites an apparatus comprising a power measurement module and a power sampling module coupled to the power measurement module for sampling state data of the apparatus in response to a power usage metric as measured by the power measurement module. For at least the reasons outlined above with respect to claim 1, applicants respectfully traverse the rejections of claim 20 and claims 21-23 depending therefrom. While *Thelander* may monitor “power usage information,” *Thelander* does not sample state data in response to a power usage metric measured by a power measurement module. Reconsideration is respectfully requested.

Claims 24-26

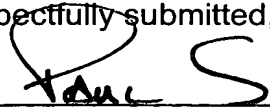
Added claims 24 and 25 depend from claim 1 and are generally directed to the ability to profile power usage of code executing on the machine or a subsystem thereof, respectively. *Thelander*, centering on monitoring information indicative of the “total amount of power consumed by the computer over time” for example, does not describe or recognize an ability to profile executing code. Claim 26, which also depends from claim 1, recites further examples of state data, none of which are described in any way by *Thelander*.

CONCLUSION

In light of the foregoing reasons, applicants believe the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issuance.

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Respectfully submitted,

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